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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,242	06/22/2005	Carl J Braunreiter	58361US005	2971
32692	7590	02/05/2009		
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427				
EXAMINER				
KASHNIKOW, ERIK				
ART UNIT		PAPER NUMBER		
1794				
NOTIFICATION DATE		DELIVERY MODE		
02/05/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com  
LegalDocketing@mmm.com

### Office Action Summary

**Application No.**

10/540,242

**Applicant(s)**

BRAUNREITER ET AL.

**Examiner**

ERIK KASHNIKOV

**Art Unit**

1794

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 24-43 is/are pending in the application.
- 4a) Of the above claim(s) 36-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 24, 26-30 and 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fernando et al. (WO 99/46028).
3. In regards to claims 24, 26-30 and 32-35 Fernando et al. teach the formation of an insulating support device disposed between and inlet and outlet end cone housings in an antipollution device (page 1 lines 5-16 and page 10 lines 14-25). Fernando et al. teach that the insulation material is made from a fiber mixture with an organic binder (page 12, lines 7-9 and page 14 lines 13-25). Fernando et al. teach that the fiber mixture comprise ceramic fibers with 40-60% of both alumina and silica (page 12 line 20 to page 13 line 2). Fernando et al. further teach that the fibers have a crystallinity of about 5-50%. In regards to the shrink percentage as well as the compressibility value, since Fernando et al. teach the same materials as those presently claimed, the values would be inherent. It is also pointed out that since the ceramic fibers being used fulfill all the same limitations as those presently claimed, i.e. with regards to type and concentration, then the bulk shrinkage would also be inherent. Fernando teach that

the mat is not intumescent (page 12 lines 15-19), teach casting the mats so as to form the mats into whatever shape desired, including cone shaped, the mat is not brittle and can support itself, and is flexible (page 16 lines 18-27). In regards to the shapes Fernando teaches that the materials are used for catalytic converters as well as diesel particulate traps and the like, and that the shape of the mat would be adjusted to fit the invention. Therefore, it would have been obvious to one of ordinary skill in the art to form the mat into any shape, including conical as presently claimed, depending on its end use. It is pointed out by examiner that while Fernando et al. do not mention the mat is seamless, they do mention that the mat may be "easily and flexibly fitted around the catalyst support structure". While this does not explicitly mean the mat is seamless, it does encompass the embodiment that the mat is fit over and not wrapped around the catalyst support structure. One of ordinary skill in the art at the time of the invention would be motivated to have the mat be seamless because it would eliminate one less point of weakness in the mat (the seam) and also allow for easier and cheaper production by not creating a need for an additional seam forming step. Examiner points out that die casting or vacuum casting the mat would easily enable one of ordinary skill in the art to form said mats into a seamless shape.

4. Claims 25 and 31 are rejected under under 35 U.S.C. 103(a) as obvious over Fernando et al. (WO 99/46028) in view of Myers et al. (US 6,613,296).

5. As stated above Fernando et al. teach an insulator for an anti pollution device as described by Applicant's however is silent regarding the insulator being part of an end cone.
6. In regards to claim 25 and 31 Myers et al. teach insulator support materials for catalytic converters (pollution control devices) in which the supportive and insulating mat extends to the end cone (column 1 lines 7-10).
7. Myers et al. teach that the mat is disposed between an inner and outer end cone (column 3 lines 6-67 and Figure 4).
8. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the insulator of Fernando et al. with the insulator mat of Myers et al. because the insulator mat of Fernando et al. which has improved resilience and support properties (page 1 lines 9-11) would benefit from the durable, simple and less expensive manufacturing of the insulator mat of Myers et al (column 3 lines 1-6).

### ***Response to Arguments***

9. Applicant's arguments, see arguments, filed 11/21/08, with respect to the objection of the specification, and the oath and declaration have been fully considered and are persuasive. The objections of the oath and declaration and the specification have been withdrawn.
10. Applicant's arguments, see arguments, filed 11/21/08, with respect to the 35 U.S.C. 112 2<sup>nd</sup> paragraph rejection of the claims have been fully considered and are persuasive. The 112 2<sup>nd</sup> paragraph rejections of the claims have been withdrawn.

11. Applicant's arguments with respect to claims 24-35 have been considered but are moot in view of the new ground(s) of rejection.
12. In response to Applicant's previous argument that the end cone insulator has to remain flexible, Examiner points out that even if the end one insulator is disposed between two metal, inflexible sheets, the insulator itself is still flexible.
13. In regards to Applicant's arguments that the mat of Fernando is not seamless and not conical, Examiner has changed the rejection to a 103, and also adds that Examiner points out that the courts have ruled that "applicant must look to the whole reference for what it teaches. Applicant cannot merely rely on the examples and argue that the reference did not teach others." In re Courtright, 377 F.2d 647, 153 USPQ 735,739 (CCPA 1967).
14. In regards to Applicant's request for rejoinder, the article claims have not been allowed and therefore the method claims will not be rejoined at this point in time.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIK KASHNIKOW whose telephone number is (571)270-3475. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Erik Kashnikow  
Examiner  
Art Unit 1794

/Callie E. Shosho/  
Supervisory Patent Examiner, Art Unit 1794